UNITED STATES PATENT AND TRADEMARK OFFICE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _21 May 2007_.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1,4,5,8-13,16,17,20-25,28,29,32-36 and 44-52_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1,4,5,8-13,16,17,20-25,28,29,32-36 and 44-52_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

This is a **Final** rejection in response to Amendments/Remarks filed 05/21/2007.

Claims 1, 4-5, 8-13, 16-17, 20-25, 28-29, 32-36, and 44-52, are pending;

Claims 2-3, 6-7, 14-15, 18-19, 26-27, 30-31, and 37-43 are previously canceled.

Claims 1, 13, and 25 are independent claims.

Effective filing date is 3-15-2000 (Ricoh).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> *(a) A patent may not be obtained though the invention is not identically disclosed or
> described as set forth in section 102 of this title, if the differences between the subject
> matter sought to be patented and the prior art are such that the subject matter as a whole
> would have been obvious at the time the invention was made to a person having ordinary
> skill in the art to which said subject matter pertains. Patentability shall not be negatived
> by the manner in which the invention was made.*

**Claims 1, 4-5, 8-11, 13, 16-17, 20-23, 25, 28-29, 32-35, and 44-52 are rejected
under 35 U.S.C. 103(a) as being unpatentable over <u>Schena</u> et al. [hereinafter
Schena], US 6,448,979 B1 filed 1/25/1999, in view of <u>Robinson</u> et al. "The Origami
Project: Paper Interfaces to the World-Wide Web",
[http://www.cl.cam.ac.uk/Research/Origami/Origami1997f/index.html], submitted
to Webnet 97 in November 1997 [hereinafter Robinson], further in view of <u>Gornish</u>
et at. US patent 5,337,362 issued 08/09/1994 [hereinafter Gornish].**

Regarding **independent claim 1:**

Schena teaches **the multimedia annotation representing at least one of an audio sound and a video clip, wherein the at least one of the audio sound and video clip to be extracted from the multimedia annotation, and the at least one extracted audio sound and video clip can be played via a multimedia player, and the multimedia annotation represented by a first bar code encoding at least one of an audio sound and a video clip, wherein the at least one of the audio sound and video clip.** Specifically, Schena discloses the multimedia annotation such that the multimedia annotation can be extracted and decoded subsequently from the first multimedia document, wherein the scanner detects and reads data, such as machine-readable codes containing link information corresponding to provider information from the printed medium. The link information corresponding to the provider information may include, a universal resource locator (URL), such as customer premises equipment (CPE) for displaying the multimedia sequence information. The multimedia sequence information may be advertising or transaction information and may contain one or more of textual, audio, or video information, and the customer premises equipment ("CPE"), serving as the receiver, plays multimedia sequence (Schena col.1, line 64 through col. 2. line 40). In addition, Schena discloses the scanner is capable of reading data such as non-coded data and machine-readable code 10 from the printed medium 50. The machine-readable code 10 (URL) may be a barcode, an enhanced barcode, a new enhanced code, or any type of code, including dynamic codes and high-density barcodes (Schena col. 3, lines 55-65).

The Examiner equates the claimed **the multimedia annotation representing at least one of an audio sound and a video clip** as equivalent to the link information may contain one or more of textual, audio, or video information as taught by Schena, and the claimed **a multimedia** as equivalent to the plays multimedia sequence as taught by Schena. Also, the Examiner equates the claimed **bar code encoding at least one of an audio sound and a video clip** as equivalent to the link information from barcode, code 10 (URL) may contain one or more of textual, audio, or video information as taught by Schena, and because the Applicant invention specification discloses "The annotation may be in different forms, such as, for example, <u>a bar code containing an audio message or a URL indicating a link to a video clip.</u>" (Applicants invention specification page 7 lines 15-18).
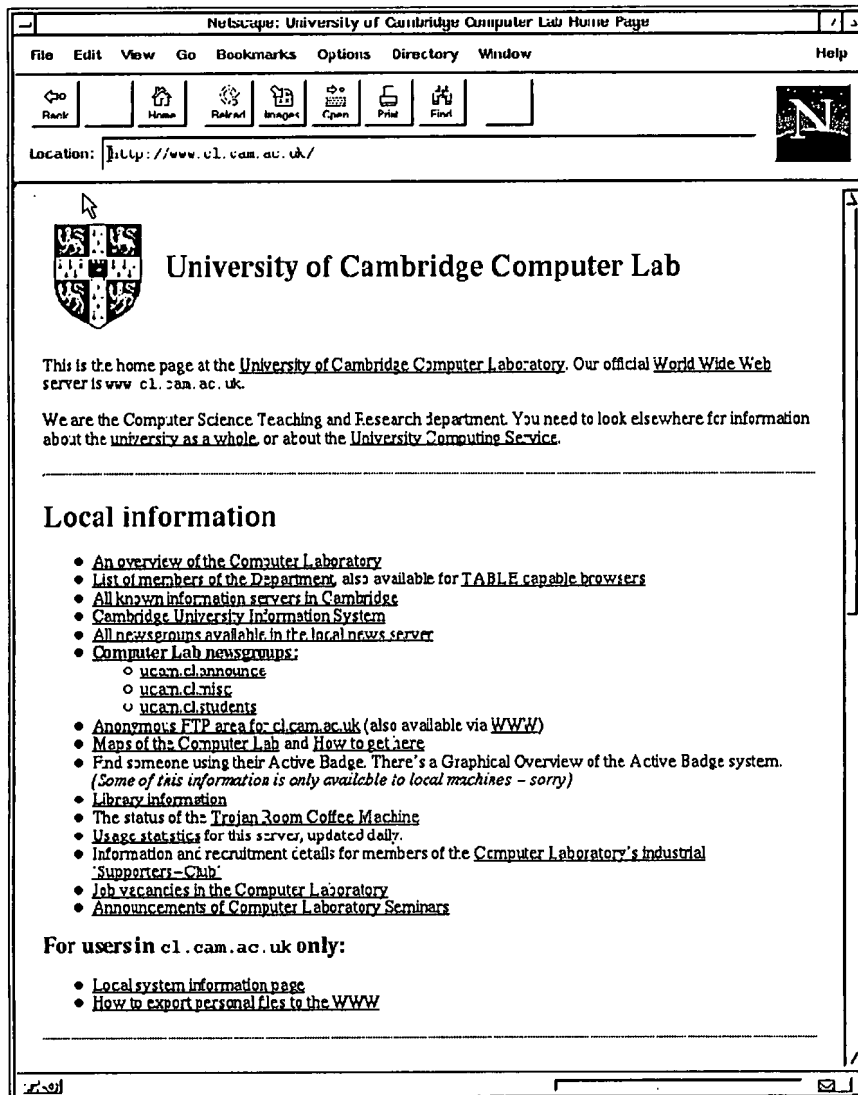
In addition, Schena does not explicitly teach, but Robinson teaches **creating a multimedia annotation for a paper document, and creating a first multimedia document by combining the paper document and the multimedia annotation, wherein the first multimedia document is generated as a part of reproducing the paper document via a document reproduction system.** Specifically, Robinson discloses the origami project, wherein the printed documents are annotated with marks in their corners to facilitate recognition and location on the desk top, and are also have a unique identifier printed in an OCR fount (see Robinson page 4 section Printing), these steps involve recognizing that a page printed by the system has appeared on the desk, determining its position, reading its unique identifier and locating any interactors. A transformation is then set up between the page representation stored in the registry and

physical co-ordinates on the desktop. The printed document thus becomes part of the

projected window system, wherein any active links are highlighted by projecting a red

background over them. For a document originating on the Web, these correspond to

links in the original HTML (Robinson page 4 section DigitalDesk, also see fig. 2 a-c, as

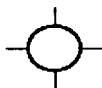example of the process of annotating a printed media).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify Schena to include a method for creating a multimedia annotation for

a paper document, and creating a first multimedia document by combining the paper

document and the multimedia annotation, wherein the first multimedia document is

generated as a part of reproducing the paper document via a document reproduction

system, as taught by Robinson. One of ordinary skill in the art would have been

motivated to modify this combination, because Schena and Robinson are from the

same field of endeavor of providing multimedia annotation for a paper document and for

the advantage of bridging the gap between the virtual multimedia-based of the Internet

word and the physical world of printed media, wherein the annotate media may contain

one or more of textual, audio, or video information, and the customer premises

equipment ("CPE"), serving as the receiver, plays multimedia sequence (Schena col.1,
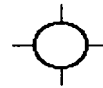
lines 5-15, col. 1 line 64 through col. 2. line 40).

Netscape: University of Cambridge Computer Lab Home Page

File   Edit   View   Go   Bookmarks   Options   Directory   Window   Help

Back | Home | Reload | Images | Open | Print | Find

Location: http://www.cl.cam.ac.uk/

University of Cambridge Computer Lab

This is the home page at the University of Cambridge Computer Laboratory. Our official World Wide Web server is www.cl.cam.ac.uk.

We are the Computer Science Teaching and Research department. You need to look elsewhere for information about the university as a whole, or about the University Computing Service.

Local information

- An overview of the Computer Laboratory
- List of members of the Department, also available for TABLE capable browsers
- All known information servers in Cambridge
- Cambridge University Information System
- All newsgroups available in the local news server
- Computer Lab newsgroups:
  - ucam.cl.announce
  - ucam.cl.misc
  - ucam.cl.students
- Anonymous FTP area for cl.cam.ac.uk (also available via WWW)
- Maps of the Computer Lab and How to get here
- Find someone using their Active Badge. There's a Graphical Overview of the Active Badge system. (Some of this information is only available to local machines – sorry)
- Library information
- The status of the Trojan Room Coffee Machine
- Usage statistics for this server, updated daily.
- Information and recruitment details for members of the Computer Laboratory's industrial 'Supporters-Club'
- Job vacancies in the Computer Laboratory
- Announcements of Computer Laboratory Seminars

For users in cl.cam.ac.uk only:

- Local system information page
- How to export personal files to the WWW

(a) Original Web page

□□□□9ЬС□ 7Ϝ□□□□□AJ7SP4□Ӌ4H□

University of Cambridge Computer Lab Home Page

University of Cambridge Computer Lab

This is the home page at the University of Cambridge Computer Laboratory   . Our official World Wi
de Web server is www.cl.cam.ac.uk .
We are the Computer Science Teaching and Research department. You need to look elsewhere for i n
formation about the   university as a whole , or about the University Computing Service .

Local information

An overview of the Computer Laboratory
List of members of the Department   , also available for TABLE capable browsers
All known information servers in Cambridge
Cambridge University Information System
All newsgroups available in the local news server
Computer Lab newsgroups:
　　　ucam.cl.announce
　　　ucam.cl.misc
　　　ucam.cl.students
Anonymous FTP area for cl.cam.ac.uk   (also available via WWW)
Maps of the Computer Lab   and How to get here
Find someone using their Active Badge . There's a Graphical Overview   of the Active Badge s
ystem. *(Some of this information is only available to local machines - sorry)*
Library information
 The status of the Trojan Room Coffee Machine
Usage statistics for this server, updated daily.
 Information and recruitment details for members of the   Computer Laboratory's industrial ·
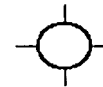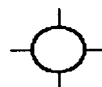Supporters-Club·
Job vacancies in the Computer Laboratory
Announcements of Computer Laboratory Seminars
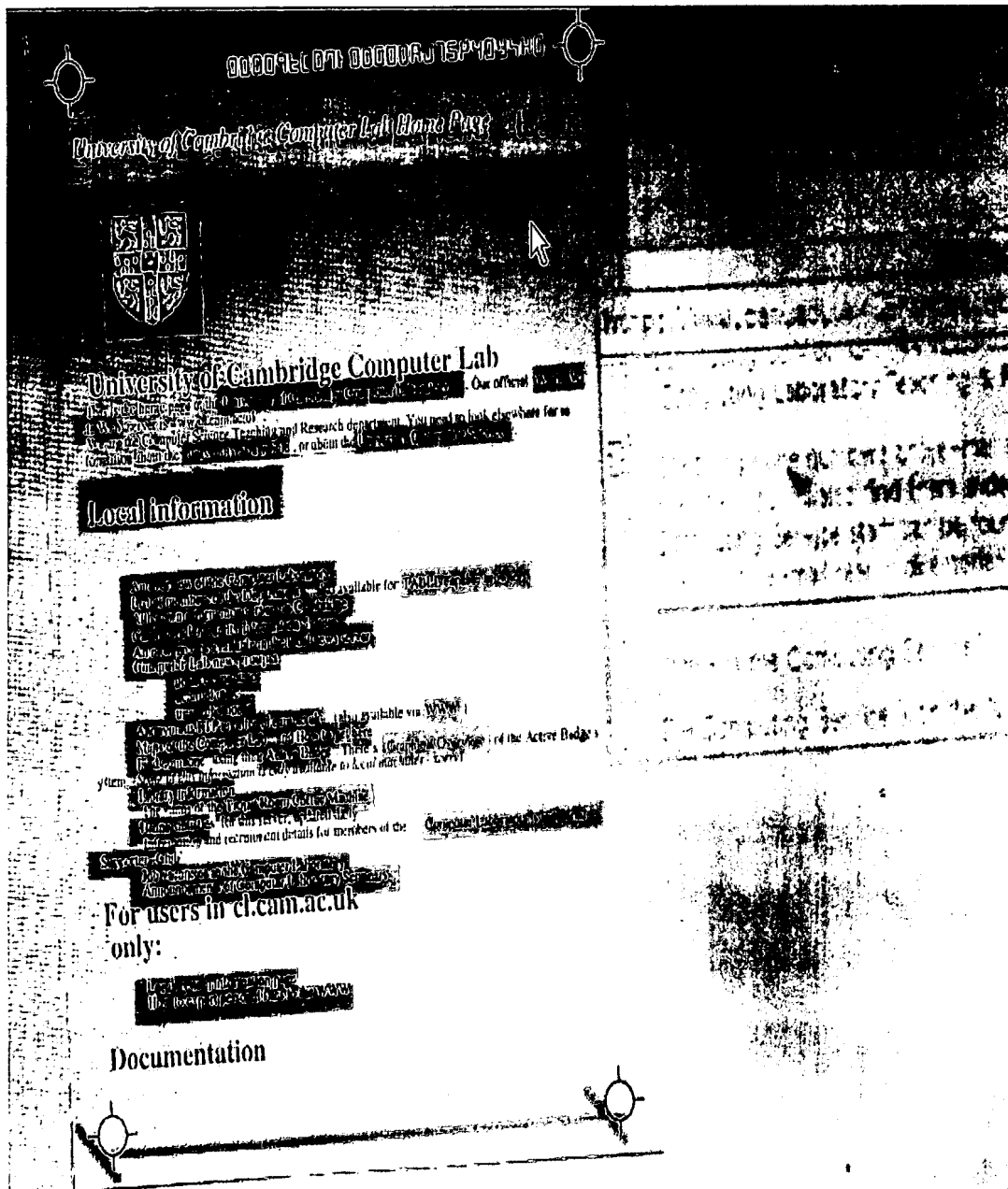
For users in cl.cam.ac.uk only:

Local system information page
How to export personal files to the WWW

Documentation

(b) Printed version.

(c) Animated on the DigitalDesk.

In addition, Schena, and Robinson do not expressly teach, but Gornish teaches:

wherein the multimedia annotation is captured via an input device of

the document reproduction system while the paper document is being

reproduced via the document reproduction system, wherein the captured

multimedia annotation is encoded within the first bar code,

(See Gornish at Column 2, Lines 5-25, teaching a method and apparatus for

transferring digital information (each box includes a frame or border. Binary data is

formatted in rows within the box, wherein a bit of digital data is depicted by the presence

or absence of an ink dot. The inside edges of the left and right sides of the box have

markers for identifying the vertical separations (i.e., the rows) between the digital data)

to and from (encode and decode) plain paper is described. a reproduction system

having an encryption device for performing encryption on a data source to produce

encrypted data. In addition, also includes an encoder for encoding the encrypted data

into a series of pixel values. These pixel values are then output by a printing device,

such that the data is placed in multiple boxes having a frame and a plurality of rows and

columns on a piece of plain paper, such that the data source is represented in

encrypted digitized form on the plain paper,

wherein the first multimedia document, which when scanned by a

process, the process causes the printed multimedia annotation to be

decoded.

(See Gornish at Column 2. Lines 30-40, teaching recognizing the data on the plain

paper, for recognizing the data includes a scanning device for scanning the boxes

(barcode) on the plain paper and for converting the pixels into electrical signals

representative of the characters. And, also includes a decoder for decoding the

electrical signals into output signals representative of the data. A decryption device then

performs decryption on the decoded data. An output device then transfers the decrypted

data onto a piece of plain paper. It is noted the claimed barcode is digital information

(each box includes a frame or border. Binary data is formatted in rows within the box,

wherein a bit of digital data is depicted by the presence or absence of an ink dot. The

inside edges of the left and right sides of the box have markers for identifying the

vertical separations (i.e., the rows) between the digital data as taught by Gornish.)

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify Schena and Robinson, to include a means wherein the multimedia

annotation is captured via an input device of the document reproduction system while

the paper document is being reproduced via the document reproduction system,

wherein the captured multimedia annotation is encoded within the first bar code, the first

multimedia document, which when scanned by a process, the process causes the

printed multimedia annotation to be decoded as taught by Gornish. One of ordinary skill

would be motivated to combine a method for transferring digital data (i.e. barcode) to

and from (encode and decode) plain paper of Jarman to encode and decode the URL

indicating a link to a video/audio clip of Schena and DigitalDesk of Robinson to

providing multimedia annotation for a paper document and for the advantage of bridging

the gap between the virtual multimedia-based of the Internet word and the physical

world of printed media, wherein the annotate media may contain one or more of textual,

audio, or video information, and the customer premises equipment ("CPE"), serving as

the receiver, plays multimedia sequence (Schena col.1, lines 5-15, col. 1 line 64

through col. 2. line 40).

Regarding **independent claim 13,**

Is directed to machine-readable medium providing instructions, which

when executed by a set of one or more processors to perform the method of

claim 1 which cites above, and is similarly rejected under the same rationale,

Also See Schena Fig, 1.

Regarding **independent claim 25,**

Is directed to a computer system include a bus, a data storage, and a

processor to perform the method of claim 1 which cites above, and is similarly

rejected under the same rationale, Also See Schena Fig, 1. also Column 2, lines

5-20).

Regarding **claims 4, 16, and 28,**

Schena teaches **wherein a location indicator associated with the multimedia**

annotation is placed on the first multimedia document, wherein the location

indicator indicates where the multimedia annotation can be retrieved and played.

Specifically, Schena discloses the link information corresponding to the provider

information may include, a universal resource locator (URL), such as customer

premises equipment (CPE) for displaying the multimedia sequence information. The

multimedia sequence information may be advertising or transaction information and

may contain one or more of textual, audio, or video information, and the customer

premises equipment ("CPE"), serving as the receiver, plays multimedia sequence

(Schena col.1, line 64 through col. 2. line 40).

Regarding **claims 5, 17, and 29,**

Schena teaches **wherein the location indicator comprises a first Uniform**

Resource Locator (URL), and a second bar code, wherein the first URL is

indicated in plain text, and wherein the second bar code represents the first URL

in an encrypted form. Specifically, Schena discloses the link information

corresponding to the provider information may include, a universal resource locator

(URL) (Schena col.1, line 64 through col. 2. line 40). In addition, the links can be

encoded according to provider, for example UPC or ISBN numbers and any code may

serve as the alphanumeric sequence (Schena col. 4, lines 45-55).

The Examiner equates the claimed **bar code** as equivalent to the UPC or ISBN

numbers and any code as taught by Schena, and because the Applicant invention

specification discloses "The annotation may be in different forms, such as, for example,

a bar code containing an audio message or a URL indicating a link to a video clip."

(Applicants invention specification page 7 lines 15-18).

Regarding claims 8, 20, and 32,

the rejection of claim 1 is fully incorporated. In addition,

Schena does not explicitly teach, but Robinson teaches, **generating an image of the paper document, the image of the paper document being unconsciously captured via the document reproduction system during the reproduction of the paper document without user intervention.** Specifically, Robinson discloses the animated paper involves scanning image of the page from top to bottom, left to right and emitting text or images as appropriate. One of these is for the HTML of the page itself (Robinson page 4 the Export section).

The Examiner equates the claimed **unconsciously and without user intervention** as equivalent to the animated paper involves scanning image of the page itself as taught by Robinson.

Also, Robison teaches **storing the image of the paper document and the multimedia annotation in a storage, wherein the second multimedia document is an electronic document associated with the first multimedia document, which is a physical document.** Specifically, Robinson discloses a Registry, which maintains the association between electronic documents and their printed variants. It stores the image of each active document and the code of any interactions required for the document, together with cross references between these and further indexes to identify them (Robison page 3 the Registry section, also see Fig. 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Schena to include a method for generating an image of the paper document,

the image of the paper document being unconsciously captured via the document

reproduction system during the reproduction of the paper document without user

intervention, and storing the image of the paper document and the multimedia

annotation in a storage, wherein the second multimedia document is an electronic

document associated with the first multimedia document, which is a physical document

as taught by Robinson. One of ordinary skill in the art would have been motivated to

modify this combination, because Schena and Robinson are from the same field of

endeavor of providing multimedia annotation for a paper document and for the

advantage of bridging the gap between the virtual multimedia-based of the Internet word

and the physical world of printed media (Schena col.1, lines 5-15, col. 1 line 64 through

col. 2. line 40), and allowing the database to be built and edited, imported and exported

to other forms of hypertext, and for documents to be printed and animated on a

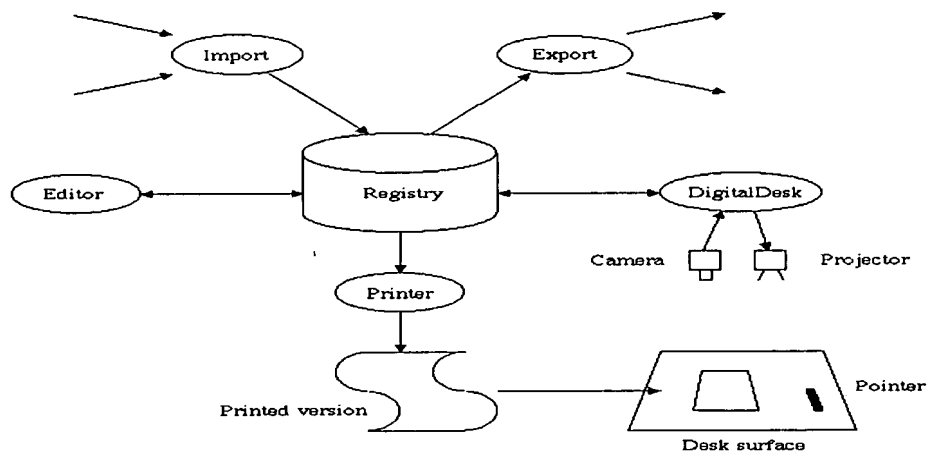DigitalDesk (Robison page 32 the Registry section).

Figure 1: Animated paper document framework.

Regarding **claims 9, 21, and 33,**

Schena teaches **wherein a multimedia document is represented as a second Uniform Resource Locator (URL) printed on the first multimedia document, and wherein the image of the paper document and the multimedia annotation is accessed with the second URL** (Schena col. 1 line 61 – col. 2 line 25 and col. 3 line 64 – col. 4 line 6).

Regarding **claims 10, 22, and 34,**

Schena teaches **wherein a third bar code is used to represent a second URL** (Schena in col. 3 lines 58-63).

Regarding **claims 11, 23, and 35,**

Schena teaches **automatically sending a second multimedia document to a recipient by electronic mail as a part of reproducing the paper document via the document reproduction system, wherein the recipient is specified by a user via an interface of the document reproduction system when the user reproduces the paper document using the document reproduction system.** Specifically, Schena discloses the link information was published or located, along with message-specific information (Schena col. 4 line 35).

The examiner equates the claimed **automatically sending a second multimedia document to a recipient by electronic mail** as equivalent to link information was published or located, along with a message as taught by Schena.

Regarding **claim 44,**

Schena teaches **wherein the first multimedia document is a physical document having the first bar code printed thereon, which when scanned by a scanning device, causes the first bar code to be decoded and the audio sound to be extracted from the first bar code, and wherein the extracted audio sound is capable of being played via an audio player.** Specifically, Schena discloses the multimedia annotation such that the multimedia annotation can be extracted and decoded subsequently from the first multimedia document, wherein the scanner detects and reads data, such as machine-readable codes containing link information corresponding to provider information from the printed medium. The link information corresponding to the provider information may include, a universal resource locator (URL), such as customer premises equipment (CPE) for displaying the multimedia sequence information. The multimedia sequence information may be advertising or transaction information and may contain one or more of textual, audio, or video information, and the customer premises equipment ("CPE"), serving as the receiver, plays multimedia sequence (Schena col.1, line 64 through col. 2. line 40). In addition, Schena discloses the scanner is capable of reading data such as non-coded data and machine-readable code 10 from the printed medium 50. The machine-readable code 10 (URL) may be a barcode, an enhanced barcode, a new enhanced code, or any type of code, including dynamic codes and high-density barcodes (Schena col. 3, lines 55-65).

The Examiner equates the claimed **bar code** as equivalent to the link information from barcode, code 10 (URL) may contain one or more of textual, audio, or video

information as taught by Schena, and because the Applicant invention specification

discloses "The annotation may be in different forms, such as, for example, <u>a bar code</u>

<u>containing an audio message or a URL indicating a link to a video clip.</u>" (Applicants

invention specification page 7 lines 15-18).

Regarding **claim 45**,

Schena teaches **capturing an audio sound of the multimedia annotation**

from a user using a microphone of the input device to annotate the paper

document to create a multimedia paper document. Specifically, Schena discloses an

enhanced electronic device, digital appliances, and microphone (Schena col. 3, lines

40-65). Also, Schena discloses the user interface obtains user input information. The

user interface may be, for example, a voice-activated system, a keypad, or a keyboard

(Schena col. 2, lines 25-45).

Regarding **claim 46**,

Schena teaches **wherein the microphone is automatically activated when**

the user selects a reproduction function of the document reproduction system to

reproduce the paper document. Specifically, Schena discloses an enhanced

electronic device, digital appliances, and microphone (Schena col. 3, lines 40-65). Also,

Schena discloses the user interface obtains user input information. The user interface

may be, for example, a voice-activated system, a keypad, or a keyboard (Schena col. 2,

lines 25-45).

The examiner equate **the microphone is automatically activated** as equivalent to a voice-activated system as taught by Schena.

Regarding **dependent claim 47**,

Schena teaches **capturing a video clip of the multimedia annotation from a user using a video camera of the input device to annotate the paper document to create a multimedia paper document**. Specifically, Schena discloses an enhanced electronic device, digital appliances, and microphone (Schena col. 3, lines 40-65). Also, Schena discloses the user interface obtains user input information. The user interface may be, for example, a voice-activated system, a keypad, or a keyboard (Schena col. 2, lines 25-45).

The examiner reads **a video camera of the input device** as equivalent to digital appliances, and microphone as a user interface for obtaining user input information as taught by Schena.

Regarding **dependent claim 48**,

Schena teaches **wherein the video camera is automatically activated when the user selects a reproduction function of the document reproduction system to reproduce the paper document**. Specifically, Schena discloses an enhanced electronic device, digital appliances, and microphone (Schena col. 3, lines 40-65). Also, Schena discloses the user interface obtains user input information. The user interface

may be, for example, a voice-activated system, a keypad, or a keyboard (Schena col. 2,

lines 25-45).

The examiner equates **the video camera is automatically activated** as

equivalent to digital appliances, and microphone as a user interface for obtaining user

input information as taught by Schena.

Regarding **dependent claim 49,**

Schena does not teach **in response to a request to retrieve a second**

multimedia document, performing a content-based search for the requested

multimedia document within the storage based on the content of the multimedia

annotation associated with the requested multimedia document. Robinson does

teach parsing and indexing the multimedia documents contained in the registry for

retrieval in fig. 1 and (the "Registry" section in pages 2-3). It would have been obvious to

one of ordinary skill in the art at the time the invention was made to have combined

Robinson into Schena to have created the claimed invention. It would have been

obvious and desirable to have used the registry index of Robinson to have searched

and located the appropriate multimedia document to retrieve.

Regarding **dependent claims 50-52,**

Schena does not teach **wherein the content-based search is performed by**

OCR, audio speech recognition, or video face recognition techniques on the

multimedia annotations of the multimedia documents being searched, Robinson

does teach parsing and indexing the contents of the multimedia documents contained in
the registry using OCR, audio speech recognition, or video face recognition techniques
(in fig. 1 and the "Registry" section in pages 2-3). It would have been obvious to one of
ordinary skill in the art at the time the invention was made to have combined Robinson
into Schena to have created the claimed invention. It would have been obvious and
desirable to have used the registry index of Robinson to have searched and located the
appropriate multimedia document to retrieve.

Claims 12, 24, and 36 are rejected under 35 U.S.C. 103(a) as being
unpatentable over Schena et al. (hereinafter Schena), US 6,448,979 B1 filed
1/25/1999, in view of Robinson et al. "The Origami Project: Paper Interfaces to the
World-Wide Web",
[http://www.cl.cam.ac.uk/Research/Origami/Origami1997f/index.html], submitted
to Webnet 97 in November 1997 (hereinafter Robinson), further in view of Gornish
et at. US patent 5,337,362 issued 08/09/1994 [hereinafter Gornish], and further in
view of Halliday et al., US 5,880,740 filed 7/12/1996 (hereinafter Halliday).

Regarding claims 12, 24, and 36,

Schena, Robinson, and Gornish do not teach, but Halliday teaches **wherein the
recipient receives the image of the paper document and the multimedia
annotation in the form of Multi-purpose Internet Mail Extension (MIME). Halliday**

does teach sending an image of a document in the form of Multi-purpose Internet

Mail Extension (MIME). Specifically, Halliday discloses MIME (Halliday col. 8, lines 5-

28).

It would have been obvious and desirable to have used the Multi-purpose

Internet Mail Extension (MIME) teaching of Halliday to have implemented the automatic

sending of the electronic multimedia document of Schena in view of Robinson, and

further in view of Jarman so that the recipient would have used any common email

client to have received the electronic multimedia document sent from the user.

It is noted that any citations to specific, pages, columns, lines, or figures in the

prior art references and any interpretation of the references should not be considered to

be limiting in any way. A reference is relevant for all it contains and may be relied upon

for all that it would have reasonably suggested to one having ordinary skill in the art.

See, MPEP 2123.

Response to Arguments

Brief description of cited prior art:

Schena [hereinafter Schena] discloses the machine-readable code on the paper is used

to communicate corresponding multimedia information when the machine-readable

code is read by a scanner. The URL encoded in the machine-readable code points to a

multimedia file. Thus, the machine-readable code on the printed medium annotates the

printed medium with the referenced multimedia file, thus combining the printed medium

with virtual multimedia. In combining the multimedia presentation with the printed

medium, Schena has created a multimedia document of the claimed invention (See

Schena the Abstract) and also Schena in col. 2 lines 6-8 that the multimedia annotation

may contain one or more of textual, audio, or video information.

Robinson [hereinafter Robinson] discloses the origami project, wherein the printed

documents are annotated with marks in their corners to facilitate recognition and

location on the desk top, and are also have a unique identifier printed in an OCR fount

(see Robinson page 4 section Printing), these steps involve recognizing that a page

printed by the system has appeared on the desk, determining its position, reading its

unique identifier and locating any interactors. A transformation is then set up between

the page representation stored in the registry and physical co-ordinates on the desktop.

The printed document thus becomes part of the projected window system, wherein any

active links are highlighted by projecting a red background over them. For a document

originating on the Web, these correspond to links in the original HTML (Robinson page

4 section DigitalDesk, also see fig. 2 a-c, as example of the process of annotating a

printed media).

Gornish [hereinafter Gornish] discloses a method and apparatus for transferring digital

information (each box includes a frame or border. Binary data is formatted in rows within

the box, wherein a bit of digital data is depicted by the presence or absence of an ink

dot. The inside edges of the left and right sides of the box have markers for identifying

the vertical separations (i.e., the rows) between the digital data) to and from (encode

and decode) plain paper is described.

Halliday [hereinafter Halliday] discloses MIME (Halliday col. 8, lines 5-28).

Beginning on page 13 of the Remarks (hereinafter the remarks), Applicant

argues the following issues, which are accordingly addressed below.

Rejection of Claims 1, 4-5, 8-11, 13, 16-17, 20-23, 25, 28-29, 32-35, and 44-52

Under 35 U.S.C. § 103(a) over Schena and Robinson:

Firstly: Applicant argues, the combination of Schena and Robinson fail to teach the

features of " *the machine-readable code of the printed medium represents at least one*

of an audio clip and a video clip via a bar code that encodes the audio and/or video

clips, " because Schena do not teach or suggest: "encode" at least the one of an audio

sound and a video clip, See the remarks Page 14 Last Para → Page 15 First Para).

> The examiner disagrees.
>
> For purposes of responding to Applicant's argument, the examiner will assume that Applicant is
> arguing for the patentability of Claim 1.

As discuss in the rejection above, specifically Schena discloses, the machine-

readable code on the paper is used to communicate corresponding multimedia

information when the machine-readable code is read by a scanner .The URL encoded

in the machine-readable code points to a multimedia file. Thus, the machine-readable

code on the printed medium annotates the printed medium with the referenced

multimedia file, thus combining the printed medium with virtual multimedia. In

combining the multimedia presentation with the printed medium, Schena has created a

multimedia document of the claimed invention (See Schena the Abstract) and also

Schena in col. 2 lines 6-8 that the multimedia annotation may contain one or more of

textual, audio, or video information.

In addition, Gornish discloses a method and apparatus for transferring digital

information (each box includes a frame or border. Binary data is formatted in rows within

the box, wherein a bit of digital data is depicted by the presence or absence of an ink

dot. The inside edges of the left and right sides of the box have markers for identifying

the vertical separations (i.e., the rows) between the digital data) to and from (encode

and decode) plain paper is described. It is noted the claimed barcode is digital

information (each box includes a frame or border. Binary data is formatted in rows within

the box, wherein a bit of digital data is depicted by the presence or absence of an ink

dot. The inside edges of the left and right sides of the box have markers for identifying

the vertical separations (i.e., the rows) between the digital data as taught by Gornish.)

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify Schena, to include a means of encoding the barcode of Gornish.

One of ordinary skill would be motivated to combine a method of transferring digital

information to and from (encode and decode) plain paper of Gornish to encoded URL in

the machine-readable code points to a multimedia file. Thus, the machine-readable

code on the printed medium annotates the printed medium with the referenced

multimedia file, thus combining the printed medium with virtual multimedia. In

combining the multimedia presentation with the printed medium, Schena has created a

multimedia document of the claimed invention (See Schena the Abstract) and also

Schena in col. 2 lines 6-8 that the multimedia annotation may contain one or more of

textual, audio, or video information.

Therefore, Schena and Gornish clearly teach, "*the machine-readable code of the

printed medium represents at least one of an audio clip and a video clip via a bar code

that encodes the audio and/or video clips*". Thus, Robinson need not teach these

limitations to support a proper 103 rejection.

Secondly: Applicant argues, "the multimedia annotation **may be** a bar code "containing" an audio message, which is clearly **not in a form of linkage**, and the claimed language clearly indicates such a limitation." See the remarks Page 15, Second).

The examiner disagrees.

For purposes of responding to Applicant's argument, the examiner will assume that Applicant is arguing for the patentability of Claim 1.

As discuss in the rejection above, Firstly, the Applicant invention specification discloses, "The annotation may be in different forms, such as, for example, <u>a bar code containing an audio message **or** a URL indicating a link to a video clip.</u>" (Applicants invention specification page 7 lines 15-18). Where the Examiner interpreted the claimed in light of the specification, thus it would have been obvious to one of ordinary skill in the art to substitute applicant's barcode with applicant's URL indicating a link to a video clip to provide access to a video clip. Secondly, Applicant admitted, "the multimedia annotation **may be** a bar code", the phase "may be" rendering the uncertainty of choice, which is not limited only to the barcode and not to a URL indicating a link to a video clip.

To clarify, the Examiner introduce Gornish reference as discuss in the rejection above, specifically, Gornish discloses a method and apparatus for transferring digital information (each box includes a frame or border. Binary data is formatted in rows within the box, wherein a bit of digital data is depicted by the presence or absence of an ink

dot. The inside edges of the left and right sides of the box have markers for identifying

the vertical separations (i.e., the rows) between the digital data) to and from (encode

and decode) plain paper is described. It is noted the claimed barcode is digital

information (each box includes a frame or border. Binary data is formatted in rows within

the box, wherein a bit of digital data is depicted by the presence or absence of an ink

dot. The inside edges of the left and right sides of the box have markers for identifying

the vertical separations (i.e., the rows) between the digital data as taught by Gornish.)

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify Schena, to include a means of encoding the barcode of Gornish.

One of ordinary skill would be motivated to combine a method of transferring digital

information to and from (encode and decode) plain paper of Gornish to encoded URL in

the machine-readable code points to a multimedia file. Thus, the machine-readable

code on the printed medium annotates the printed medium with the referenced

multimedia file, thus combining the printed medium with virtual multimedia. In

combining the multimedia presentation with the printed medium, Schena has created a

multimedia document of the claimed invention (See Schena the Abstract) and also

Schena in col. 2 lines 6-8 that the multimedia annotation may contain one or more of

textual, audio, or video information.

Thirdly: Applicant argues Schena and Robinson fail to teach, "the multimedia

annotation is captured via an input device of the document reproduction system while

the paper document is being reproduced via the document reproduction system, where

the captured multimedia annotation is encoded within the first bar code." See the

remarks Page 15, Third Para).

       The examiner disagrees.

       For purposes of responding to Applicant's argument, the examiner will assume that Applicant is

       arguing for the patentability of Claim 1.

       As discuss in the rejection above, to address the newwly amended portion, the

Examiner introduces the Gornish reference (See the rejection above for dettails).

Fourthly: Appellant argues, the combination of Schena, Robinson, and Halifax fail to

render the obviousness under 35 U.S.C. 103 (a), See the remarks Page 15 Last

Paragraph → Page 17.

       The examiner disagrees.

       Following KSR direction as following: "SUPREME COURT OF THE UNITED

STATES No. 04–1350 KSR INTERNATIONAL CO., PETITIONER v. TELEFLEX INC.

ET AL. ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR

THE FEDERAL CIRCUIT [April 30, 2007], (page 2-3 of the court opinion) Following Graham v.

John Deere Co. of Kansas City, 383 U. S. 1 (1966), the Court set out a framework for applying

the statutory language of §103, language itself based on the logic of the earlier decision in

Hotchkiss v. Greenwood, 11 How. 248 (1851), and its progeny. See 383 U. S., at 15–17. The

analysis is objective:

> "Under §103, the scope and content of the prior art are to be determined; differences
> between the prior art and the claims at issue are to be ascertained; and the level of ordinary
> skill in the pertinent art resolved. Against this background the obviousness or
> nonobviousness of the subject matter is determined. Such secondary considerations as
> commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to
> give light to the circumstances surrounding the origin of the subject matter sought to be
> patented." Id., at 17–18.

While the sequence of these questions might be reordered in any particular case, the factors
continue to define the inquiry that controls. If a court, or patent examiner, conducts this analysis
and concludes the claimed subject matter was obvious, the claim is invalid under §103. Seeking
to resolve the question of obviousness with more uniformity and consistency, the Court of
Appeals for the Federal Circuit has employed an approach referred to by the parties as the
"teaching, suggestion, or motivation" test (TSM test), under which a patent claim is only proved
obvious if "some motivation or suggestion to combine the prior art teachings" can be found in
the prior art, the nature of the problem, or the knowledge of a person having ordinary skill in the
art. See, e.g., Al-Site Corp. v. VSI Int'l, Inc., 174 F. 3d 1308, 1323–1324 (CA Fed. 1999). KSR
challenges that test, or at least its application in this case. See 119 Fed. Appx. 282, 286–290
(CA Fed. 2005). Because the Court of Appeals addressed the question of obviousness in a
manner contrary to §103 and our precedents, we granted certiorari, 547 U. S ___ (2006). We
now reverse.

Using the broadest reasonable interpretation, and cites evidences above, the

Examiner had found that Schena in view of Robinson, further in view of Halliday, and

newly added Gornish reference have taught all the limitation of the claimed invention.

In addition, As discuss in the section First→third Response to Argument cites

above, thus the examiner has established "some motivation or suggestion to combine the

prior art teachings" can be found in the prior art, the nature of the problem, or the knowledge of

a person having ordinary skill in the art. See, e.g., Al-Site Corp. v. VSI Int'l, Inc., 174 F. 3d 1308,

1323–1324 (CA Fed. 1999). KSR challenges that test, or at least its application in this case. See

119 Fed. Appx. 282, 286–290 (CA Fed. 2005).

Accordingly, for at least all the above evidence, and the current rejection,

therefore the Examiner respectfully maintains the rejection of claims 1, 4-5, 8-13, 16-17,

20-25, 28-29, 32-36, and 44-52, at least at this time.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Quoc A. Tran whose telephone number is 571-272-

8664. The examiner can normally be reached on Monday through Friday from 9 AM to

5 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Doug Hutton can be reached on 571-272-4137. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Quoc A, Tran
 Patent Examiner
Art Unit 2176
08/04/2007

/Doug Hutton/
Supervisory Primary Examiner
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